

REMARKS

Claims 1, 7, 10, 11, 38, and 45 are amended. The Applicants thank the Examiner for the detailed Advisory Action. Please reconsider the rejection to the pending claims in light of the following remarks.

Rejection of Claims 1, 7, 11, 19, 23, 28, and 45 in view of Jawanda

The Examiner first notes that claim 1 refers to communicating information via the active connection using the information exchange protocol established for the active connection. Claim 1 has been amended and now refers to using **the information exchange protocol established for the first connection**. Support for the amendment can be found, e.g., in original claim 1 which uses the term "the information exchange protocol" when referring back to the antecedent "an information exchange protocol for communicating on the first connection." The terms "first" and "second" are relative and distinguish any two connections in a temporal sequence in which the first connection precedes the second. Claims 19, 23, and 28 (as previously presented) and claims 7, 11, and 45 (as currently amended) also refer to using the particular information exchange protocol established for the first connection.

Jawanda does not disclose that, when the active connection is switched to the second connection, the second connection operates the information exchange protocol established for the first connection. The Examiner responded to this by saying on page 2 of the Advisory Action that:

Jawanda teaches in col. 5, line 32-34, "Thus, following block 120, the user has concurrent wireless data connections with both WWAN 10 and WLAN 12."

However Jawanda does not disclose that the information exchange protocols used for the two concurrent wireless data connections are the same. To anticipate, a reference must disclose each and every element of the claimed invention. This passage alone is not anticipatory because it does not address whether the information exchange protocols are the same or different. As described below, the remainder of Jawanda also does not show this limitation of the claim and, if anything, suggests using different protocols.

The Examiner has pointed to excerpts from Jawanda in some detail:

Now let us examine what Jawanda has to teach, in col. 4, in line 47-60, "As discussed above with respect to FIG. 3, at the higher layers of connectivity the outward-bound datagrams are passed from application 90 to network access arbitrator 92, which routes the datagrams to CAI 94. CAI 94 transmits the datagrams via I/O adapter 78, mobile phone 16, base station 30, NSS 32 and IWF 36 to the CAI 94 executed by WNG 38. The CAI 94 executed by WNG 38 in turn transmits the datagrams to WLAN-G 22 utilizing the mobile IP protocol. In response to receipt of datagrams by WLAN-G 22, WLAN-G 22 converts the datagrams to the appropriate protocol for WLAN 12 and forwards them to the fixed terminal 24 executing application 91. Datagrams transmitted from application 91 to application 90 follows the reverse data path." (at a device, opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection;) [emphasis added]

However, as the underscored language indicates, Jawanda plainly emphasizes "convert[ing] the datagrams to the appropriate protocol." Thus, **according to Jawanda, different information exchange protocols are appropriate for different connections.** Jawanda teaches selecting the appropriate protocol for the active connection. *Since this teaching is contrary to the requirement of the method of claim 1, it cannot anticipate.* In the method of claim 1, the problem of converting to an appropriate protocol is averted since the second connection uses the information exchange protocol established for the first connection. **No conversion is required.** Thus, the method of claim 1 is novel and advantageous over the teaching of Jawanda.

The Examiner also relies on another passage as quoted below:

Jawanda further goes on disclosing in col. 5, line 20-27, "Returning to block 106, in response to a determination that a higher bandwidth data connection (i.e., a direct connection to WLAN via wireless network adapter 20) is available, for example, due to mobile terminal 14 being moved into the service area of WLAN 12, the process proceeds to block 120. Block 120 depicts mobile terminal 14 establishing a second wireless data connection (at a device, opening a second connection to the server;) by logging on to WLAN 12 via wireless network adapter 20." (selecting from connections including the second connection, a connection to be an active connection; and communicating information via the active connection using the information exchange protocol established for the active connection.) [emphasis added; emphasis in original removed]

Here, Jawanda indicates that establishing a second wireless data connection requires logging on to the WLAN. In the subsequent passage from the Jawanda (not quoted in the Office Action), Jawanda explains the "logging on" step as follows: the **"mobile terminal 14 performs the conventional registration procedures dictated by the network and followed by fixed**

terminals 24. . .” A conventional registration procedure would include establishing a information exchange protocol, as Jawanda explained earlier. Here again, in the method of claim 1, the need for a conventional registration procedure is alleviated, because the second connection (if selected as active) can merely continue operating the information exchange protocol established for the first connection. Again, the method of claim 1 is novel and advantageous over that taught in Jawanda. The Examiner responded to this in the Advisory Action by stating that:

Arguments are irrelevant to the subject matter claimed.

The Examiner's remark, however, is not understood. The argument shows that different registration procedures are used and therefore, if anything, Jawanda suggests using different information exchange protocols for the first and second connections rather than the same information exchange protocol for the first and second connections. The claim explicitly states “communicating information via the active connection using the information exchange protocol established for the first connection.” When the active connection is switched to the second connection, the information exchange protocol for the first connection would be used on the second connection.

The fact that Jawanda emphasizes that “convert[ing] the datagrams to the appropriate protocol” shows that Jawanda teaches away from using a single information exchange protocol for the active connection. There would be no need in Jawanda to convert datagrams if a single protocol were used, irrespective of the connection.

Clearly, neither the cited portions of Jawanda, nor Jawanda as whole, anticipates the method of claim 1 or claims dependent therefrom. Likewise, claims 7, 11, 19, 23, 28, and 45 refer to using the information exchange protocol established for the first connection. For at least the reasons above, Jawanda also does not anticipate nor suggest the subject matter of these claims or claims dependent therefrom.

Rejection of Claim 3 in view of Jawanda

Claim 3 refers to a method in which the second connection is opened **prior to** establishing the information exchange protocol. With respect to Claim 3, the Examiner stated on page 6 of the Office Action:

As per claim 3, Jawanda teaches the method of claim 1 in which the second connection is opened prior to establishing the information exchange protocol (col. 4 lines 61-63; determination to open second connection made any time after block 102). [emphasis added]

The passage cited by the Examiner refers to FIG. 4 which shows block 102. The Examiner is apparently alleging that this block is the step of establishing the information exchange protocol. As quoted above, the Examiner concedes that Jawanda teaches opening the second connection “**after** block 102.” The cited passage from Jawanda (col. 4, lines 61-63) also clearly states that the second connection is opened **after** block 102, rather than **prior to** block 102. Thus, Jawanda cannot anticipate a method in which the second connection is opened **prior to** establishing the information exchange protocol.¹

The Advisory Action again retraces the diagram in FIG. 4, but admits:

[A] determination can be made at any time following block 102 whether or not a higher bandwidth data connection is available.

The statement “at any time following block 102” clearly indicates that the second connection is opened **after** block 102. FIG. 4 shows the step of establishing a second connection at block 120. There is no path in FIG. 4 in which one can begin at block 120 and then reach block 102. Thus block 120 must be **after** block 102.

However, the claim refers to a method in which the second connection is opened **prior to** establishing the information exchange protocol. The Applicants are at a loss as to how a passage that, by the Examiner’s own interpretation, describes opening the second connection **after** establishing the information exchange protocol can be read to anticipate a claim to a method in which it is opened **prior to** establishing the information exchange protocol.

¹ The Applicants have assumed *arguendo* that the Examiner is correct about the function of block 102, but do not concede the point.

Rejection Claims 8, 10, 18, 21, 26, and 46 in view of Bernet and Jawanda

Claims 8, 10, 18, 21, 26, and 46 were rejected as obvious over Jawanda in view of Bernet. Claim 10 has been amended to depend from claim 8. Claim 8, for example, refers packets that include aggregated information for more than one application. In other words, an individual packet includes aggregated information from **at least two different applications**. Neither Jawanda nor Bernet teaches or suggests this limitation. The Examiner states on page 13:

Bernet teaches the method of claim 1 in which the information is communicated in packets that include aggregated information for more than one application (Paragraph 0013).

The cited paragraph 0013 of Bernet states, in part:

The present invention also provides a mechanism for aggregating flows of qualitative applications by integrating RSVP and differentiated services (diff-serv) via a DCLASS object returned in an RSVP message.

However, this reference to “aggregating flows of . . . applications” means only that each flow includes aggregated information for **a single application**. There are plural flows because there are plural applications, each with its own aggregated flow. This meaning is clear from the Bernet's Detailed Description and from FIG. 5. The part of the Detailed Description that discusses “Qualitative RSVP Signaling,” for example, beings at Paragraph 0037. Paragraph 0038 sums up the method as follows:

an aggregate traffic handling mechanism implemented in the immediate network devices may prioritize the application's packets relative to other packets, as described below. [emphasis added]

Thus, each packet includes information for **a single application**. The subsequent paragraphs are to the same effect. The Office Action also mentions paragraphs 0045 and 0047 with respect to claim 10. However, these paragraphs again confirm that the aggregation in Bernet is aggregation of information for a single application into a packet. For example, paragraph 0045 refers to FIG. 5 which shows a packet with a field for **a single application** identifier (“P-type = 3 (AUTH_APP)”). Paragraph 0047 provides for an even “finer-grained” form of aggregation. See, e.g., paragraph 0046 and the first line of paragraph 0047 which indicate that the aggregated information discussed in paragraph 0047 is for “sub-applications.”

None of these passages, nor Bernet as a whole, teaches or suggests aggregating information from different applications together into a single packet.

Rejection of Claim 38 in view of Jawanda

Claim 38 has been amended. See, e.g., page 8, line 23 of the specification for support.

With respect to claim 38, the Examiner stated, on page 10 of the Office Action:

As per claim 38, Jawanda teaches the method of claim 1 in which the device compares its geographic position to the range of one of the connections. (col. 4, line 20-30).

The passage from Jawanda quoted by the Examiner is reproduced below:

Referring now to FIG. 4, there is depicted a high level logical flowchart of a method of wireless data communication in which a data communication session is seamlessly handed off between wireless data communication networks. For illustrative purposes, the process will be described with respect to an exemplary processing scenario in which the service area of WWAN 10 includes a business premises or campus housing WLAN 12 and in which a user of mobile terminal 14 travels from a location distant from WLAN 12 into the service area of WLAN 12 and then returns to the remote location.

Although travel involves changing geographic position, nothing in the above passage teaches that the device is aware of its geographic position and uses such information to determine if it is within range of one the connections. As taught by this application, awareness of geographic position (e.g., by using the global position system or GPS, e.g., as described on page 8, line 26 of the specification) enables a device to anticipate changes in connectivity before there is an actual deterioration in signal. Nothing in Jawanda teaches or suggests a device that detects its own geographic position and can anticipate changes in connectivity. Its "polling method" (see column 4, line 65) involves detecting properties of a connection itself rather than using information about geographic position to anticipate loss or appearance of a connection. Thus, Jawanda cannot anticipate claim 38.

The Advisory Action explains that Jawanda allegedly teaches that a device can make a determination that a high bandwidth data connection is available. While bandwidth and signal strength might in some cases depend on physical position, that information is not equivalent to

detecting geographic position, e.g., using a global position system or GPS. Geographic position does not equate with detecting local parameters such as signal strength because two different positions might have the same bandwidth and signal, but yet be geographically separated.

Rejection of Claims 39 and 40 in view of Jawanda

Claim 39 refers to a method in which the device retains outgoing information until reception is acknowledge. The Examiner states on page 10 of the Office Action:

As per claims 39 and 40, Jawanda teaches the method of claim 1 in which the device retains outing information until reception is acknowledge, and the method of claim 39 in which the device monitors a buffer that retains outgoing information to determine whether to transmit additional outgoing information. (col. 5, line 20-42).

The referenced section of Jawanda is reproduced below:

Returning to block 106, in response to a determination that a higher bandwidth data connection (i.e., a direct connection to WLAN via wireless network adapter 20) is available, for example, due to mobile terminal 14 being moved into the service area of WLAN 12, the process proceeds to block 120. Block 120 depicts mobile terminal 14 establishing a second wireless data connection by logging on to WLAN 12 via wireless network adapter 20. To logon to WLAN 12, mobile terminal 14 performs the conventional registration procedures dictated by the network and followed by fixed terminals 24, except that logon information is conveyed between mobile terminal 14 and wireless LAN adapter 64 by wireless communication. Thus, following block 120, the user has concurrent wireless data connections with both WWAN 10 and WLAN 12. Then, as depicted at block 122, network access arbitrator 92 causes the transfer of datagrams to be seamlessly handed off from the wireless connection with WWAN 10 to the wireless connection with WLAN 12 while maintaining the session between applications 90 and 91. Thus, following block 122, datagrams are routed between application 90 and application 91 utilizing the higher bandwidth data path between WLAN interfaces 96 rather than between CAIs 94, as shown at block 124.

Nothing in this passage nor the totality of Jawanda teaches either (i) retaining outgoing information or (ii) acknowledging reception. In fact, Jawanda makes no allowance for the possibility that, during a "handoff," the baton could be dropped. A common everyday problem with mobile telephones is that communication is momentarily interrupted, and the listener never recovers the missing (and often critical) part of the speaker's sentence even when

communication is later restored. Jawanda is silent as to how to overcome this difficulty. Thus, Jawanda cannot anticipate claims 39 and 40. In the Advisory Action, the Examiner noted that:

Jawanda teaches in col. 5, line 32-34, "Thus, following block 120, the user has concurrent wireless data connections with both WWAN 10 and WLAN 12.

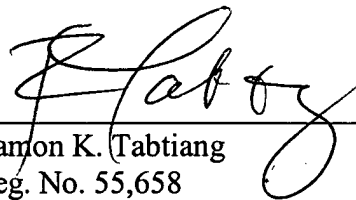
However, claim 39 includes an element that is nowhere mentioned in the above quoted passage. Specifically, claim 39 requires that "the device retains outgoing information until reception is acknowledged." The mention of concurrent wireless data connections in Jawanda has no bearing on whether outgoing information is retained or not. To anticipate, a reference must teach each element of the claim. Because Jawanda does not teach retaining outgoing information, it cannot anticipate.

Conclusion

The Applicants respectfully submit that all claims are in condition for allowance, which action is expeditiously requested. The Applicants do not concede any positions of the Examiner that are not expressly addressed above, nor do the Applicants concede that there are not other good reasons for patentability of the presented claims or other claims.

Please apply any other charges or credits to deposit account 06-1050. If prosecution would be expedite by a telephonic conference, please call the undersigned at 617-521-7017.

Respectfully submitted,



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